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<110> LIN, SHIU-RU
      WANG, JAW-YUAN

<120> GENES FOR DIAGNOSING COLORECTAL CANCER

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<140> 10/786,148
<141> 2004-02-26

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cctgacccga ccttgtgcag ccccctgcc ctggtgtcct gggttttcgt gatgatcttt    4020

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<210> 80
<211> 3635
<212> DNA
<213> Homo sapiens

<400> 80
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agaggatcgc ggatgtaaac taagaccccg aaaactccag accttcagga gagcagtcag    840

cagagcccct ctgtgaagtg aaaccttact cctgtccagt gaccgagcca ctgcaaagca    900

cagctgatcc tggccccctg tgaagaagtg ttctggtcaa aactaaagga actccctccc    960

cacctgcagg actccgaaga cagtgcgact tctggctgca gaatacctt tcagaaacct    1020

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tggagagctt gttttccctc caagaagagg tttgagacag gcggcatcct gcactgagtc   1560

agacaagtgg gagctgtagg aactgcacct gcagcctctt cttactcccc attgaccctg   1620

tcttccttcc ctggcttttt caactggacc aaagatgaag gcacttatgg acccttgat    1680
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ctggtgggca ccctctgttc ctgtttgtgt gtttgaatag tctgaaatgc tgtgactttt   3600

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<210> 81
<211> 1983
<212> DNA
<213> Homo sapiens

<400> 81
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atcccaaata tttcatctta attttgtttt gtggacacct gaacaataca ttttttttcaa   180

agacagagac aattacaaca gagaagcagt cacagcctac cttattcaca tcatcaatgt    240

cacaggtatt ggctaattct caaaacacaa cagggaatcc tttgggtcaa ccaacacaat    300

tcagcgacac tttttctgga caatcaatat cacctgccaa agtcactgct ggacaaccaa    360

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ctgttcataa tccatccaca caaccaacat caactgtcaa aaattcacct aggagtacac    660

caggatttat cttagatact accagtaaca aacaaacccc acaaaaaaac aattataatt    720

caatagctgc catactaatt ggtgtacttc tgacttctat gttggtagct ataatcatca    780

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ctccatttgc tgatggagaa acccctgaca tttgtatgga taacatcaga gaaaatgaaa    900

tatccacaaa acgtacatca atcatttcac ttacaccctg gaaaccaagc aaaagcacac    960

ttttagcaga tgacttagaa attaagttgt ttgaatcaag tgaaaacatt gaagactcca   1020

acaacccaa aacagagaaa ataaaagatc aagtaaatgg tacatcagaa gatagtgctg    1080

atggttcaac agttggaact gctgtttctt cttcagatga tgcaggtctg cctccaccac   1140

ctcccccttct ggatttggaa ggacaggaaa gtaaccaatc tgacaaaccc acaatgacaa   1200
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aaatgactct tttttcttta tatgttaaca tatataaaat ggcaactgat agtcaatttt      1560

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ctacatatac ttattaccca gtacagtttt ttttcccctg aaaagctgtg tataaaatta      1800

tggtgaataa acttttatgt ttccatttca aagaccaggg tggagaggaa taagagacta      1860

agtatatgct tcaagtttta aattaatacc tcaagtatta aataaatatt ccaagtttgt      1920

gggaatggga gattaaaatg catgtttgag agtaaaaaaa aaaaaaaaaa aaaaaaaaaa      1980

aaa                                                                    1983


<210> 82
<211> 1093
<212> DNA
<213> Homo sapiens

<400> 82
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gcaccctcaa gggccacaac ggctgggtaa cccagatcgc tactaccccg cagttcccgg       180

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agaccaacta tggaattcca cagcgtgctc tgcggggtca ctcccacttt gttagtgatg       300

tggttatctc ctcagatggc cagtttgccc tctcaggctc ctgggatgga accctgcgcc       360

tctgggatct cacaacgggc accaccacga ggcgatttgt gggccatacc aaggatgtgc       420

tgagtgtggc cttctcctct gacaaccggc agattgtctc tggatctcga gataaaacca       480

tcaagctatg gaataccctg ggtgtgtgca aatacactgt ccaggatgag agccactcag       540

agtgggtgtc ttgtgtccgc ttctcgccca acagcagcaa ccctatcatc gtctcctgtg       600

gctgggacaa gctggtcaag gtatggaacc tggctaactg caagctgaag accaaccaca       660
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aactgaagca agaagttatc agtaccagca gcaaggcaga accaccccag tgcacttccc      960

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aaaatggctt ttc                                                        1093
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<210> 83
<211> 1412
<212> DNA
<213> Homo sapiens

<400> 83
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gctgcccgaa gccccccgag attgcacatg gctatgtgga gcactcggtt cgctaccagt      180

gtaagaacta ctacaaactg cgcacagaag gagatggagt atacacctta aatgataaga      240

agcagtggat aaataaggct gttggagata aacttcctga atgtgaagca gatgacggct      300

gcccgaagcc ccccgagatt gcacatggct atgtggagca ctcggttcgc taccagtgta      360

agaactacta caaactgcgc acagaaggag atggagtgta caccttaaac aatgagaagc      420

agtggataaa taaggctgtt ggagataaac ttcctgaatg tgaagcagta tgtgggaagc      480

ccaagaatcc ggcaaaccca gtgcagcgga tcctgggtgg acacctggat gccaaaggca      540

gctttccctg gcaggctaag atggtttccc accataatct caccacaggt gccacgctga      600

tcaatgaaca atggctgctg accacggcta aaaatctctt cctgaaccat tcagaaaatg      660

caacagcgaa agacattgcc cccactttaa cactctatgt ggggaaaaag cagcttgtag      720

agattgagaa ggttgttcta caccctaact actcccaagt agatattggg ctcatcaaac      780

tcaaacagaa ggtgtctgtt aatgagagag tgatgcccat ctgcctacca tccaaggatt      840

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ttactgacca tctgaagtat gtcatgctgc ctgtggctga ccaagaccaa tgcataaggc      960

attatgaagg cagcacagtc cccgaaaaga agacaccgaa gagccctgta ggggtgcagc     1020
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ccatactgaa tgaacacacc ttctgtgctg gcatgtctaa gtaccaagaa gacacctgct   1080

atggcgatgc gggcagtgcc tttgccgttc acgacctgga ggaggacacc tggtatgcga   1140

ctgggatctt aagctttgat aagagctgtg ctgtggctga gtatggtgtg tatgtgaagg   1200

tgacttccat ccaggactgg gttcagaaga ccatagctga gaactaatgc aaggctggcc   1260

ggaagccctt gcctgaaagc aagatttcag cctggaagag ggcaaagtgg acgggagtgg   1320

acaggagtgg atgcgataag atgtggtttg aagctgatgg gtgccagccc tgcattgctg   1380

agtcaatcaa taaagagctt tcttttgacc ca                                 1412
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<210> 84
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 84
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acaaggaaga ggatgtctga gctggagaag gccatggtgg ccctcatcga cgttttccac    120

caatattctg gaagggaggg agacaagcac aagctgaaga aatccgaact caaggagctc    180

atcaacaatg agctttccca tttcttagag gaaatcaaag agcaggaggt tgtggacaaa    240

gtcatggaaa cactggacaa tgatggagac ggcgaatgtg acttccagga attcatggcc    300

tttgttgcca tggttactac tgcctgccac gagttctttg aacatgagtg agattagaaa    360

gcagccaaac ctttcctgta acagagacgg tcatgcaaga aagcagacag caagggcttg    420

cagcctagta ggagctgagc tttccagccg tgttgtagct aattaggaag cttgatttgc    480

tttgtgattg aaaaattgaa aacctctttc caaaggctgt tttaacggcc tgcatcattc    540

tttctgctat attaggcctg tgtgtaagct gactggcccc agggactctt gttaacagta    600

acttaggagt caggtctcag tgataaagcg tgcaccgtgc agcccgccat ggccgtgtag    660

accctaaccc ggagggaacc ctgactacag aaattacccc ggggcaccct taaaacttcc    720

actacctta aaaaacaaag ccttatccag cattatttga aaacactgct gttctttaaa     780

tgcgttcctc atccatgcag ataacagctg gttggccggt gtggccctgc aagggcgtgg    840

tggcttcggc ctgcttcccg ggatgcgcct gatcaccagg tgaacgctca gcgctggcag    900

cgtcctggaa aaagcaactc catcagaact cgcaatccga gccagctctg ggggctccag    960

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gcgttcaata aaaag   1095

<210> 85
<211> 1904
<212> DNA
<213> Homo sapiens

<400> 85
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ctggtaattc ttcacctctt ttctcagctc cctgcagcat gggtgctggg ccctccttgc   120

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cccagcgcga tgtcaactgc tcggttatgg gaccacaaga aaaaaaagta gtggtgtacc   300

ttcagaagct ggatacagca tatgatgacc ttggcaattc tggccatttc accatcattt   360

acaaccaagg ctttgagatt gtgttgaatg actacaagtg gtttgccttt tttaagtata   420

aagaagaggg cagcaaggtg accacttact gcaacgagac aatgactggg tgggtgcatg   480

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atgtgtatgt caacacagca caccttaaga attctcagga aaagtattct aataggctct   600

acaagtatga tcacaacttt gtgaaagcta tcaatgccat tcagaagtct tggactgcaa   660

ctacatacat ggaatatgag actcttaccc tgggagatat gattaggaga agtggtggcc   720

acagtcgaaa aatcccaagg cccaaacctg caccactgac tgctgaaata cagcaaaaga   780

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aagcgagaat ccgtatacta accaacaatt ctcagacccc aatcctaagc cctcaggagg   960

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gaaagtacgc ccaagatttt gggctggtgg aagaagcttg cttcccctac acaggcactg   1080

attctccatg caaaatgaag gaagactgct ttcgttatta ctcctctgag taccactatg   1140

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ggcccatggc agttgctttt gaagtatatg atgacttcct ccactacaaa aagggggatct   1260

accaccacac tggtctaaga gacccctttca acccctttga gctgactaat catgctgttc   1320

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agaattaaaa ctgcccttaa ttttaatata cctttcaatc ggccactggc cattttttc     1680

taagtattca attaagtggg aattttctgg aagatggtca gctatgaagt aatagagttt    1740

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ttatttttaa attgtaccaa tcacaagaaa ataatggcaa taattatcaa aacttttaaa    1860

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<210> 86
<211> 1493
<212> DNA
<213> Homo sapiens

<400> 86
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ttggctgtga tattgtgtgc tacagttgtt caaggcttcc ccatgttcaa aagaggacgc    180

tgtctttgca taggccctgg ggtaaaagca gtgaaagtgg cagatattga gaaagcctcc    240

ataatgtacc caagtaacaa ctgtgacaaa atagaagtga ttattaccct gaaagaaaat    300

aaaggacaac gatgcctaaa tcccaaatcg aagcaagcaa ggcttataat caaaaaagtt    360

gaaagaaaga attttaaaa atatcaaaac atatgaagtc ctggaaaagg gcatctgaaa     420

aacctagaac aagtttaact gtgactactg aaatgacaag aattctacag taggaaactg    480

agacttttct atggttttgt gactttcaac ttttgtacag ttatgtgaag gatgaaaggt    540

gggtgaaagg accaaaaaca gaaatacagt cttcctgaat gaatgacaat cagaattcca    600

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ggttaccatc ggagtttaca aagtgctttc acgttcttac ttgttgtatt atacattcat    720

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tgggatactg gcaacagtgc acatatttca taaccaaatt agcagcaccg gtcttaattt    1140

gatgttttc aactttatt cattgagatg ttttgaagca attaggatat gtgtgtttac      1200

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aatcactttt acttttgta attctgtctc ttagaaaaat acataatcta atcaatttct      1380

ttgttcatgc ctatatactg taaaatttag gtatactcaa gactagttta aagaatcaaa    1440

gtcattttt tctctaataa actaccacaa cctttctttt ttaaaaaaaa aaa            1493
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<210> 87
<211> 1737
<212> DNA
<213> Homo sapiens

<400> 87
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<213> Homo sapiens

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tcccctcaca ttccacaggc ccatggactc actttttgtaa caaactccta ccaaccctga    960

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<210> 102
<211> 1541
<212> DNA
<213> Homo sapiens

<400> 102
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ccttttcctc cctcccttac gtccccgagt gcggcagtac cgcctccttc ccagccgcgc     180

ggcttcctcc agacctctcg gcgcgggtga gccctattcc cagaggcagg tggtgctgac     240

cctgtaaccc aaaggaggaa acagctggct aagctcatca ttgttactgg tgggcaccat     300

gtccttgaag cttcaggcaa gcaatgtaac caacaagaat gaccccaagt ccatcaactc     360

tcgagtcttc attggaaacc tcaacacagc tctggtgaag aaatcagatg tggagaccat     420

cttctctaag tatggccgtg tggccggctg ttctgtgcac aagggctatg cctttgttca     480

gtactccaat gagcgccatg cccgggcagc tgtgctggga gagaatgggc gggtgctggc     540

cgggcagacc ctggacatca acatggctgg agagcctaag cctgacagac caagggggct     600

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gccagtgccc agggcggtcc ctgtgaagcg accccgggtc acagtccctt tggtccggcg     720

tgtcaaaact aacgtacctg tcaagctctt tgcccgctcc acagctgtca ccaccagctc     780

agccaagatc aagttaaaga gcagtgagct gcaggccatc aagacggagc tgacacagat     840

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caatccagat ggcaagaaga agggtgatgg aggtggcgcc ggcggcggcg gcggtggtgg     960

tggcagcggt ggcggtggca gtggtggtgg cggtggcggt ggcagcagcc ggccaccagc    1020

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cgacggcgat gaggaagggc tcctgacaca cagcgaggaa gagctggaac acagccagga    1140

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<210> 103
<211> 2834
<212> DNA
<213> Homo sapiens

<400> 103
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aggagataaa aagaacatcc agtcatggat aaaaatgagc tggttcagaa ggccaaactg     120

gccgagcagg ctgagcgata tgatgacatg gcagcctgca tgaagtctgt aactgagcaa     180

ggagctgaat tatccaatga ggagaggaat cttctctcag ttgcttataa aaatgttgta     240

ggagcccgta ggtcatcttg gagggtcgtc tcaagtattg aacaaaagac ggaaggtgct     300

gagaaaaaac agcagatggc tcgagaatac agagagaaaa ttgagacgga gctaagagat     360

atctgcaatg atgtactgtc tcttttggaa aagttcttga tccccaatgc ttcacaagca     420

gagagcaaag tcttctattt gaaaatgaaa ggagattact accgttactt ggctgaggtt     480

gccgctggtg atgacaagaa agggattgtc gatcagtcac aacaagcata ccaagaagct     540

tttgaaatca gcaaaaagga aatgcaacca acacatccta tcagactggg tctggccctt     600

aacttctctg tgttctatta tgagattctg aactccccag agaaagcctg ctctcttgca     660

aagacagctt ttgatgaagc cattgctgaa cttgatacat taagtgaaga gtcatacaaa     720

gacagcacgc taataatgca attactgaga gacaacttga cattgtggac atcggatacc     780

caaggagacg aagctgaagc aggagaagga ggggaaaatt aaccggcctt ccaacttttg     840

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gttttttgtt tacgatttat gacaggttta tgttacttct atttgaattt ctatatttcc     960

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atgtatatca agcacagcag taaaacaaaa acccatgtat ttaacttttt tttaggattt    1620

ttgcttttgt gatttttttt tttttttttt gatacttgcc taacatgcat gtgctgtaaa    1680

aatagttaac agggaaataa cttgagatga tggctagctt tgtttaatgt cttatgaaat    1740

tttcatgaac aatccaagca taattgttaa gaacacgtgt attaaattca tgtaagtgga    1800

ataaaagttt tatgaatgga cttttcaact actttctcta cagcttttca tgtaaattag    1860


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aaaaaatgag ttcctatttt ttctgggaga gggggggatt gattagaaaa aaatgtagtg    2100

tgttccattt aaaattttgg catatggcat tttctaactt aggaagccac aatgttcttg    2160

gcccatcatg acattgggta gcattaactg taagtttttgt gcttccaaat cactttttgg    2220

tttttaagaa tttcttgata ctcttatagc ctgccttcaa ttttgatcct ttattctttc    2280

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ctgcagcaaa tctctcctta gttgatgaga ctgtgtttat ctccctttaa aaccctacct    2520

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ctctaaataa tgatggggct aagttatacc caaagctcac tttacaaaat atttcctcag    2640

tactttgcag aaaacaccaa acaaaaatgc cattttaaaa aaggtgtatt ttttctttta    2700

gaatgtaagc tcctcaagag cagggacaat gttttctgta tgttctattg tgcctagtac    2760

actgtaaatg ctcaataaat attgatgatg ggaggcagtg agtcttgatg ataagggtga    2820

gaaactgaaa tccc                                                      2834
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<210> 104
<211> 1637
<212> DNA
<213> Homo sapiens

<400> 104
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ggttccagag gaggcccagg aggagggttc aggccctttg taccacatat cccatttgac    180

ttctatttgt gtgaaatggc ctttccccgg gtcaagccag cacctgatga aacttccttc    240

agtgaggcct tgctgaagag gaatcaggac ctggctccca attctgctga acaggcatct    300

atcctttctc tggtgacaaa aataaacaat gtgattgata atctgattgt ggctccaggg    360

acatttgaag tgcaaattga agaagttcga caggtgggat cctataaaaa ggggacaatg    420

actacaggac acaatgtggc tgacctggtg gtgatactca agattctgcc aacgttggaa    480

gctgttgctg ccctggggaa caaagtcgtg gaaagcctaa gagcacagga tccttctgaa    540


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ggtgatgcca gctatcttgc ttctgaaata tctacctggg atggagtgat agtaacacct   1140

tcagaaaagg cttatgagaa gccaccagag aagaaggaag gagaggaaga agaggagaat   1200

acagaagaac cacctcaagg agaggaagaa gaaagcatgg aaactcagga gtgacattcc   1260

cttcactcct tttcctaccc aagggggaag actggagcct aagctgcctg ctactgggct   1320

ttacatggtg acagacattt ccgtgggata gggaagatag caggaagaaa agtaaactcc   1380

atagaagtgt cattccactg ggttttgata ttggcttagc tgccagtctc ccatttgtga   1440

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caactcctga aaaccccctct ctcaactaat actttgctgt tgaaatgttg tgaaatgtta   1560

agtgtctgga aatttttttt tctaagaaaa actattaaag tacttcctag taaaaaaaaa   1620

aaaaaaaaaa aaaaaaa                                                   1637
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<210> 105
<211> 1591
<212> DNA
<213> Homo sapiens

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attatatata acaatagtag tcattttaaa tatatattct gaaatctttg caaattttaa     180

cagaagagtc gaagctctgc gagacccaat atttgccaat aagaatggtt atgataatta     240

gcaccatgga gcctcaggtg tcaaatggtc cgacatccaa tacaagcaat ggaccctcca     300

gcaacaacag aaactgtcct tctcccatgc aaacaggggc aaccacagat gacagcaaaa     360

ccaacctcat cgtcaactat ttaccccaga atatgaccca agaagaattc aggagtctct     420

tcgggagcat tggtgaaata gaatcctgca aacttgtgag agacaaaatt acaggacaga     480

gtttagggta tggatttgtt aactatattg atccaaagga tgcagagaaa gccatcaaca     540

ctttaaatgg actcagactc cagaccaaaa ccataaaggt ctcatatgcc cgtccgagct     600

ctgcctcaat cagggatgct aacctctatg ttagcggcct tcccaaaacc atgacccaga     660

aggaactgga gcaacttttc tcgcaatacg gccgtatcat cacctcacga atcctggttg     720

atcaagtcac aggagtgtcc agaggggtgg gattcatccg ctttgataag aggattgagg     780

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cttctgcttg ttcccccagg ttctccccaa ttaccattga tggaatgaca agccttgtgg    1080

gaatgaacat ccctggtcac acaggaactg ggtggtgcat ctttgtctac aacctgtccc    1140

ccgattccga tgagagtgtc ctctggcagc tctttggccc ctttggagca gtgaacaacg    1200

taaaggtgat tcgtgacttc aacaccaaca agtgcaaggg attcggcttt gtcaccatga    1260

ccaactatga tgaggcggcc atggccatcg ccagcctcaa cgggtaccgc ctgggagaca    1320

gagtgttgca agtttccttt aaaaccaaca agcccacaa gtcctgaatt tcccattctt    1380

acttactaaa atatatatag aaatatatac gaacaaaaca cacgcgcgca cacacacaca    1440

tacacgaaag agagagaaac aaactttttca aggcttatat tcaaccatgg actttataag    1500

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ataatgctta gaaaaaaaaa aaaaaaaaaa a   1591

<210> 106
<211> 1923
<212> DNA
<213> Homo sapiens

<400> 106
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tagctaaccg cttccatgtg caaggcaggt tccagacttc ggggtgagga ggattaactg   120

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tggctgtggc caatgatgaa gagctgaatc agctgctaaa aggagtcacc atagccagtg   480

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agttggaagc catcatcaca ccacccccag ccaaaaaggc caagtctcca tcccagaaga   600

agcctgtatc taaaaaagca ggaggcaaga aaggggcccg gaaatccaag aagcagggtg   660

aagtcagtaa ggcagccagc gccgacagca caaccgaggg cacacctgcc gacggcttca   720

cagtcctctc caccaagagc ctcttccttg gccagaagct gaaccttatt cacagtgaaa   780

tcagtaattt agccggcttt gaggtggagg ccataatcaa tcctaccaat gctgacattg   840

accttaaaga tgacctagga aacacgctgg agaagaaagg tggcaaggag tttgtggaag   900

ctgtcctgga actccggaaa aagaacgggc ccttggaagt agctggagct gctgtcagcg   960

caggccatgg cctgcctgcc aagtttgtga tccactgtaa tagtccagtt tggggtgcag   1020

acaagtgtga agaacttctg gaaaagacag tgaaaaactg cttggccctg gctgatgata   1080

agaagctgaa atccattgca tttccatcca tcggcagcgg caggaacggt tttccaaagc   1140

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tacccccacct tcagtttaaa agaaaaaaaa aatccccttc actcctactg ggaggtggga   1380

ccccttttcat tttcagtttt gctcatctag ggaaaataag gctttggttt ccagtttaat   1440

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tgtttttgac cttctaaaat gttttttatgt tagcactgat agttggcatt actgttgtta    1500

agcactgtgt tccagaccgt gtctgactta gtgtaaccta ggagatttta tagttttatt    1560

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taaggcaaag cagaatctgt tgtccttaat tatatttgca atttggaatt tgtgtgagtt    1860

gatttagtaa aatgttaaac cgttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa    1920

aaa                                                                  1923


<210> 107
<211> 799
<212> DNA
<213> Homo sapiens

<400> 107
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gtgctgtacc aagagtttgc tcctggctgc tttgatgtca gtgctgctac tccacctctg     120

cggcgaatca gaagcagcaa gcaactttga ctgctgtctt ggatacacag accgtattct     180

tcatcctaaa tttattgtgg gcttcacacg gcagctggcc aatgaaggct gtgacatcaa     240

tgctatcatc tttcacacaa agaaaaagtt gtctgtgtgc gcaaatccaa aacagacttg     300

ggtgaaatat attgtgcgtc tcctcagtaa aaaagtcaag aacatgtaaa aactgtggct     360

tttctggaat ggaattggac atagcccaag aacagaaaga accttgctgg ggttggaggt     420

ttcacttgca catcatggag ggtttagtgc ttatctaatt tgtgcctcac tggacttgtc     480

caattaatga agttgattca tattgcatca tagtttgctt tgtttaagca tcacattaaa     540

gttaaactgt attttatgtt atttatagct gtaggttttc tgtgtttagc tatttaatac     600

taattttcca taagctattt tggtttagtg caaagtataa aattatattt ggggggggaat    660

aagattatat ggactttctt gcaagcaaca agctattttt taaaaaaact atttaacatt     720

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cattaataag acaaatatt                                                 799


<210> 108
<211> 1023
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<212> DNA
<213> Homo sapiens

<400> 108
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gagaattact tccccactga tggagcccag cagcattgag aaaattgtag agattgatgc     300

tcacataggt tgtgccatga gtgggctaat tgctgatgct aagactttaa ttgataaagc     360

cagagtggag acacagaacc actggttcac ctacaatgag acaatgacag tggagagtgt     420

gacccaagct gtgtccaatc tggctttgca gtttggagaa gaagatgcag atccaggtgc     480

catgtctcgt ccctttggag tagcattatt atttggagga gttgatgaga aaggacccca     540

gctgtttcat atggacccat ctgggacctt tgtacagtgt gatgctcgag caattggctc     600

tgcttcagag ggtgcccaga gctccttgca agaagtttac cacaagtcta tgactttgaa     660

agaagccatc aagtcttcac tcatcatcct caaacaagta atggaggaga agctgaatgc     720

aacaaacatt gagctagcca cagtgcagcc tggccagaat ttccacatgt tcacaaagga     780

agaacttgaa gaggttatca aggacattta aggaatcctg atcctcagaa cttctctggg     840

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ctccattgta tgtgcatttt ttaaatgatg tctgtacata aaggcagttc tgaaataaag     960

aaaattttaa aataaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa    1020

aaa                                                                 1023


<210> 109
<211> 2533
<212> DNA
<213> Homo sapiens

<400> 109
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ccgaggagga gcagaggatc aatgcggttc aagaatcgat tccagcggtt catgaaccat     120

cgagctccag ccaatggccg ctacaagcca acttgctatg aacatgctgc taactgttac     180

acacacgcat tcctcattgt tccggccatc gtgggcagtg ccctcctcca tcggctgtct     240

gatgactgct gggaaaagat aacagcatgg atttatggaa tgggactctg tgccctcttc     300
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atcgcttcta cagtatttca cattgtatca tggaaaaaga gccacttaag gacagcggag   360

cattgttttc acatgtgtga tagaatggtt atctatttct tcattgctgc ttcttatgct   420

ccatggttaa atcttcgtga acttggaccc ctggcatctc atatgcgttg gtttatctgg   480

ctcatggcag ctggaggaac catttatgta tttctctacc atgaaaaata taaggtggtt   540

gaactctttt tctatctcac aatgggattc tctccagcct tggtggtgac atcaatgaac   600

aacaccgatg gacttcagga acttgcctgt gggggcttaa tttattgctt gggagttgtg   660

ttcttcaaga gtgatggcat cattccattt gcccacgcca tctggcacct gtttgtggcc   720

acggcagctg cagtgcatta ctacgccatt tggaaatacc tttaccgaag tcctacggac   780

tttatgcggc atttatgacc aatctgtact aattctccaa accagtatta tttcaattat   840

ggcacttggg agtggggtga gagctaaaca ttgcacaggg caaagaaaaa aaataactgc   900

actgacttta tatcttttga atataattac tgtgaaagta taaaggctgt gttctggaat   960

tttctgcctc acagcaaata aataaggtag tgaattaatt attcattcca ttccactatc   1020

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tcctataagc tatttgggaa aaattatagt gtatgtttcc catccagaaa catgcctttc   3360

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gaggaagagg aggaagatga agaccaggac tacagctttc ctatatcttc tattctagag   1320

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<211> 3163
<212> DNA
<213> Homo sapiens

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tgaaggagtt aaaggatgct aaattactaa gaggaagtga tgggcagtag gggctgagca   180

aagataactt ctgacatagt caaaccaact ccctctcaga agaacctgat gtttcctgac   240

tgctttctcc ttcctcagcc ctgccctgct tggatagagg cctccgaaca ggagtaaaga   300

atggctgttg aacatccaca aggcacctgc aagactatga atcaaagttg agaccaagaa   360

attatttctg aaaaaggata tggaaaacct tacaaaacac agcattgagt gttcaagttt   420

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atgtggcaag gcctttggta gtggtgcaaa ccttgcttac catcaaagaa ttcatactgg   720

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aattcacaca ggtgagaaac cttatgaatg tatagattgt ggtaaagcct ttggcagtgg    1020

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caggaaaaaa atcaccccaa ataaaataaa tatttgaaga tccttatcta tattcattcc    2040

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aaaaaaaaaa aaaaaaaaa aaaaaaaga aaaaaaaaa aaa                         3163
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<212> DNA
<213> Homo sapiens
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ggtgcaaaaa gtaatcacta gattgaaata catgaaggtt ttttgctttt tgacatacga     180

aaatgtcaag agaaaggcca aagatttgta cttttttcact tacaaagcac tccttttttcc   240

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tgtttatgta gaatgatttt gttaagagta atgtaaacta ttattgagta gaggcctaaa     360

gaggactgtg ccattttttgc tatttaaagg aatcacaaat gatcatactt aagtgagcaa    420

aaatgacaag ttttactagc taagtagaga aataaatctc aaatgcagcg ctacaatttt     480

cattatctta agtacattgt acatttctac agaacctgtg attattctcg catgataagg     540

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cagcagggat ggaaggaggg tagggaagtt atgaattact ccttccagta gtagctctga     780
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<211> 2202
<212> DNA
<213> Homo sapiens

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aagattccac tccgggaaaa gttttcctta caactccaga tgcagcaggt gtcaaccagt    300

tattttttac cactcctgat ctgtctgcac aacacctgca gctcctaaca gataattctc    360

cagaccaagg accaaataag gtttttgatc tttgcgtagt atgtggagac aaagcatcag    420

gacgtcatta tggagcagta acttgtgaag ctgcaaagg attttttaaa agaagcatcc    480

gaaaaaattt agtatattca tgtcgaggat caaaggattg tattattaat aagcaccacc    540

gaaaccgctg tcaatactgc aggttacaga gatgtattgc gtttggaatg aagcaagact    600
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tgaatattca tccatctgga gtaaaaactg agtcagctgt gctgatgaca tcagataagg      840

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ttggaaaaac taaagatctt tctcaaaata gtaatgaaat gtctatgatt gaaagcttaa      960

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gaatccaagg tatttttatt ttagcttccc ttaagaattt ttgaagtgac tgggcaggca     2040

gcagaaatta aatgaatttt tcttcctgat tcctttaaat gaatatgaaa cactacaaat     2100

ttattcttgg tgaagatgat acctgaagct gtcacctctt gattatctaa actaagcgct     2160

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<211> 2716
<212> DNA
<213> Homo sapiens

<400> 119
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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

<400> 131

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<213> Homo sapiens

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gactgcagtg caattcaatt tttagataca gcagggatcc acacactgaa agaagttcgc      2040

agagattatg aagccattgg aatccaggtt ctgctggctc agtgcaatcc cactgtgagg      2100

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gcttctggat cacaaagtca taactagaca ggtttgttct tgtagttttc tatccccagt      2760


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<210> 133
<211> 1702
<212> DNA
<213> Homo sapiens

<400> 133

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taggtggacc ttggattttg gcgggtgaag aggctaggtt gtttaaggag gtggggcgcg       180

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gatcttgtgc ggacgctgta caaggtgcaa aacgaatgcc ccggcatcac gcgggtctac       360

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<211> 4139
<212> DNA
<213> Homo sapiens

<400> 134
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gttggagaga aatccaggta ctcactagac tggtaccttc tgccaccatg ggggagcttt    180
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ccctgaatat ctactttgga tttattcctg aaataatctt catgacctct ttgtttggct   1920

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caccaagcct tctgatccat ttcataaaca tgttcctctt ttcctaccca gagtctggtt   2040

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<211> 2808
<212> DNA
<213> Homo sapiens

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agagctaacg aggaaaggga tttaaagagt ttttcttggg tgtttgtcaa acttttattc      240

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actctcagag aacactgatt ttttggctcc tggtgttagt tccttcacag attctaacca      780

acaagaaagt atcacaaaga gagaggaaaa ccaagaacaa cctagaaatt attcacatca      840

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ggatccaaat atttccaatg gagaagagga agaagaaaaa gagccaggtg aagttggtac    960

ccacaatgat aaccaagaaa gaaagacaga attgcccagg gagcatgcta acagcaagca   1020

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aagcaagatg caggaggatg aatttgatca gggtaaccaa gaacaagaag ataactccaa   1140

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<211> 1479
<212> DNA
<213> Homo sapiens

<400> 136

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gcgatggttc atccttcggc agaacacgct ggtgtactac aagcttgagg ggggtcggag     180

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cgagtggatt gaagctatca aaaagctaac atgacaagga cctgagggaa ccaggattcc    1140

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<211> 2828
<212> DNA
<213> Homo sapiens

<400> 137
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gaaggtgctg accagtgggg ccttagcaat ttgaagggtt gggaaggagg aattatattt   1860

gcaaaggggc tgtctattag catatttcct ttgagggggc aaaaaaaagt gccagtatcg   1920


acttttacag attgtggcca gtgaggatat tataatccta tgtaaacaga aaagtcccac   1980

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cctatcaggg ttgctaaacc ctggtacatc gtatataaaa tgtattaaaa ctggggtttg   2400

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tattttaaaa aagaaattaa aagttttaaa ctcacatcca tattacacct ttcccccctg   2520

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aacgttgtat ttttatagac atgttttttt aaaaatccta agtttttaaa taactatgga   2760

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<212> DNA
<213> Homo sapiens

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agttcagcat ccttggctgt ggaatatgta gattcacttt tacctgagaa tcctctgcaa         180

gaaccattta aaaatgcttg gaactatatg ttgaataatt atacaaagtt ccagattgca         240

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cctttgattt gtggaaccta ttattttaca gagtatttca atattcctta tgattgggaa         480

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atttttggaa cagactctca gtataatgcc tataatgaaa agaggaagaa gtttgagaaa        960

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aaactagtag ctaacattgc ttctggagag cagaaataag catgtcttct ggctactaag       1080

tgataaaaag aacattaaca acctttaatt accttcctag tgggaacttt ttctacttta       1140

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gtggcacagt ctcagctcac tgcaacctct gcctcccagt tcaagcaatt cttctgcctc       1500
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c                                                                       1741


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<211> 904
<212> DNA
<213> Homo sapiens

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cggacttcag agaagcctgc tgccgtcagt atgagatggg agaatgcaca cgaggcggct      540

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gccgtcgcaa gaagcataga tcaagatccc gatcccggga gcgtcgttct cggtctagag      660

accgtggtcg tggcggtggc ggtggcggtg gtggaggtgg cggcggacgg gagcgtgaca      720

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atgtctgcta gaaagtgttg tagttgattg accaaaccag ttcataaggg gaattttttta      840

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cagt                                                                    904


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<211> 2037
<212> DNA
<213> Homo sapiens

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caaagttacc gggcagtgct gcgaggagtg ggtctgtgac gaggatagta tcaaggaccc   720

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gtgttttaag actgaatgtt ttatttatca aaatgtagcc tttggggagg gaggggaaat      1920

gtaatactgg aataatttgt aaatgatttt aattttatat tcagtgaaaa gattttattt      1980

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<211> 3186
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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caatgtcaat aaaaagttaa gaaaaaaaaa aaaaaaaaa aaa                       1903
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